

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DIST.

PERMIT TO CONSTRUCT

**GRANTED AS OF:TBD
A/N 510438**

Equipment Description:

ALTERATION OF:

DIGESTER GAS FLARING SYSTEM CONSISTING OF:

1. HYDROGEN SULFIDE REMOVAL VESSEL.
2. SEDIMENT TRAP.
3. FLAME ARRESTER.
4. ENCLOSED FLARE, BEKAERT, MODEL CEB 50, 1,700,000 BTU/HR, 1'-5" DIA. X 14'-0" H.

BY ADDITION OF:

1. CONDENSATE KNOCKOUT TANK UPSTREAM OF THE HYDROGEN SULFIDE REMOVAL VESSEL.
2. BLOWER. [ITEM NO. 4] FOR THE FLARE.
4. NATURAL GAS SUPPORT TRAIN, AUTOMATIC COMBUSTION AIR CONTROL AND AUTOMATIC GAS SHUTOFF VALVE FOR THE FLARE

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. PRIOR TO BURNING DIGESTER GAS IN THIS EQUIPMENT, THE DIGESTER GAS SHALL FIRST BE TREATED THROUGH A PERMITTED KNOCKOUT VESSEL/GAS-LIQUID SEPARATOR AND A HYDROGEN SULFIDE REMOVAL VESSEL.
[RULE 204]

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DIST.

5. AT LEAST TWO (2) SAMPLING PORTS SHALL BE PROVIDED IN THE FLARE STACK AT LEAST ONE-HALF DUCT DIAMETER UPSTREAM OF THE FLARE OUTLET, 90 DEGREES APART. EACH SAMPLING PORT SHALL CONSIST OF A FOUR-INCH FLANGED PORT. ALL PORTS SHALL BE PROPERLY CENTERED. AN EQUIVALENT METHOD OF EMISSION SAMPLING MAY BE USED UPON APPROVAL BY THE EXECUTIVE OFFICER. ADEQUATE AND SAFE ACCESS TO ALL SOURCE TEST PORTS SHALL BE PROVIDED WITHIN 48 HOURS NOTICE BY SCAQMD.
[RULE 217]
6. A SAMPLING PORT SHALL BE INSTALLED AT THE INLET GAS LINE TO THE FLARE DOWNSTREAM OF THE HYDROGEN SULFIDE REMOVAL VESSEL TO ALLOW THE COLLECTION OF A DIGESTER GAS SAMPLE.
[RULE 217]
7. THE FLARE SHALL BE EQUIPPED WITH A TEMPERATURE INDICATOR AND RECORDER WHICH MEASURES AND RECORDS THE GAS TEMPERATURE IN THE FLARE STACK WHENEVER THE FLARE IS IN OPERATION.
[RULE 1303(a)(1)-BACT]
8. WHENEVER THE FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAN 1400 DEGREES F, AS MEASURED BY AN APPROVED TEMPERATURE INDICATOR, SHALL BE MAINTAINED WITHIN 28 INCHES OF THE MESH BURNER, EXCEPT FOR 30 MINUTES DURING START UP AND SHUT DOWN.
[RULE 1303(a)(1)-BACT]
9. THE FLARE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-DOWN SYSTEM WITH A FAILURE ALARM, WHICH HAS BEEN APPROVED BY THE SCAQMD, TO AUTOMATICALLY ISOLATE THE FLARE FROM THE DIGESTER GAS SUPPLY LINE, SHUT OFF THE BLOWER AND IMMEDIATELY NOTIFY A RESPONSIBLE PARTY OF THE SHUT-DOWN.
[RULE 1303(a)(1)-BACT]
10. THE AUTOMATIC SHUT-DOWN SAFETY SYSTEM SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND THE RESULTS RECORDED.
[RULE 1303(a)(1)-BACT]
11. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE DIGESTER GAS AND NATURAL GAS SUPPLY LINES TO THE FLARE TO MEASURE AND RECORD THE QUANTITY OF DIGESTER GAS (IN SCFH OR SCFM) BEING BURNED IN THE FLARE.
[RULE 1303(a)(1)-BACT]
12. THE TOTAL VOLUME OF DIGESTER GAS BURNED IN THE FLARE SHALL NOT EXCEED 5,160 STANDARD CUBIC FEET PER HOUR.
[RULE 1303(b)(2)-Offsets]
13. THE TOTAL VOLUME OF NATURAL GAS BURNED IN THE FLARE SHALL NOT EXCEED 150 STANDARD CUBIC FEET PER HOUR.
[RULE 1303(b)(2)-Offsets]
14. THE HEAT INPUT THROUGH THE FLARE SHALL NOT EXCEED 1.7 MILLION BTUS PER HOUR.
[RULE 1303(b)(2)-Offsets]

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DIST.

15. WEEKLY READINGS OF BTU CONTENT OF THE GAS AT THE INLET TO THE FLARE SHALL BE TAKEN USING AN INSTRUMENT APPROVED BY THE SCAQMD. ALL RESULTS SHALL BE RECORDED.
[RULE 1303(b)(2)-Offsets]
16. ALL DIGESTER GAS COLLECTED SHALL BE DIRECTED EITHER TO THE FLARE FOR COMBUSTION OR TO A TREATMENT FACILITY WHICH HAS A VALID PERMIT TO CONSTRUCT OR OPERATE, AS APPLICABLE, FROM THE SCAQMD.
[RULE 204]
17. ALL RECORDING DEVICES SHALL BE SYNCHRONIZED WITH RESPECT TO THE TIME OF DAY.
[RULE 204]
18. THE FLARE SHALL BE DESIGNED AND OPERATED SO THAT THE FLAME IN THE FLARE REMAINS BELOW THE HEIGHT OF THE FLARES OPERATING THERMOCOUPLE AT ALL TIMES.
[RULE 204]
19. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE RELEASE OF ANY RAW DIGESTER GAS INTO THE ATMOSPHERE. ANY BREAKDOWN OR MALFUNCTION WHICH RESULTS IN EMISSIONS OF RAW DIGESTER GAS SHALL BE REPORTED TO THE SCAQMD WITHIN ONE HOUR AFTER OCCURRENCE AND IMMEDIATE REMEDIAL MEASURES SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSIONS INTO THE ATMOSPHERE.
[RULE 217]
20. WITHIN 180 DAYS OF INITIAL START-UP, UNLESS OTHERWISE APPROVED BY THE EXECUTIVE OFFICER, THE APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH SCAQMD APPROVED TEST PROCEDURES AND FURNISH THE SCAQMD WRITTEN RESULTS OF SUCH PERFORMANCE TESTS WITHIN SIXTY (60) DAYS AFTER TESTING. WRITTEN NOTICE OF THE TEST SHALL BE PROVIDED TO THE SCAQMD TEN (10) DAYS PRIOR TO THE TESTING SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE SCAQMD FOR APPROVAL AT LEAST SIXTY (60) DAYS PRIOR TO THE START OF TESTS.

THE TEST SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE INLET GAS TO THE FLARE AND THE FLARE EXHAUST FOR:

- A. METHANE
- B. TOTAL NON-METHANE ORGANICS
- C. OXIDES OF NITROGEN (EXHAUST ONLY)
- D. CARBON MONOXIDE (EXHAUST ONLY)
- E. TOTAL (PM10) PARTICULATES (EXHAUST ONLY)
- F. HYDROGEN SULFIDE (INLET ONLY)
- G. C1 THROUGH C3 SULFUR COMPOUNDS (SPECIATED)(INLET ONLY)
- H. CARBON DIOXIDE
- I. TOXIC AIR CONTAMINANTS INCLUDING, BUT NOT LIMITED TO, ACETYLENE, ACROLEIN, BENZENE, CHLOROBENZENE, CHLOROFORM, DICHLOROBENZENE, 1,2-DICHLOROETHANE, FORMALDEHYDE, TETRACHLOROETHYLENE, TOLUENE, 1,1,1-TRICHLOROETHANE, TRICHLOROETHYLENE, VINYL CHLORIDE, AND XYLENE ISOMERS (EXHAUST ONLY)
- J. OXYGEN
- K. NITROGEN

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DIST.

- L. MOISTURE CONTENT
 - M. TEMPERATURE
 - N. FLOW RATE
 - O. BTU VALUE
- [RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-Offsets]

21. APPLICANT SHALL PERFORM A FULL RISK ASSESSMENT ON THE EMISSIONS FROM THE FLARE WITHIN NINETY (90) DAYS AFTER REQUEST FROM THE SCAQMD IF THE SOURCE TEST RESULTS SHOW THE EMISSIONS ARE GREATER THAN THAT CALCULATED UNDER THE PERMIT TO CONSTRUCT EVALUATION.
[RULE 1401]

Emissions and Requirements:

22. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: 0.1 GR/SCF, RULE 409
PM10: 26 LBS/MMCF, RULE 1303
NOX: 0.025 LB/MMBTU, RULE 1303
VOC: 0.038 LBS/MMBTU, RULE 1303
CO: 0.06 LBS/MMBTU, RULE 1303
CO: 2000 PPMV, RULE 407